

## **REDIRECTION TO A VIRTUAL ROUTER**

### **ABSTRACT OF THE DISCLOSURE**

Methods and apparatus for sending a redirect packet to a host. In a first router that supports a virtual router protocol, a method of sending a redirect packet to a host, the redirect packet notifying the host that specific packets are to be redirected to a second router, includes receiving a packet from a host, the packet including a source address identifying the host and a destination address identifying a destination network. The first router ascertains the destination network of the packet from the destination address and obtains from a routing table an address of a next router to the packet's destination network. The first router then determines whether to send a redirect packet to the host. In accordance with one embodiment, this is performed by determining whether the next router and the host identified by the source address of the packet are on the same network. When it is determined that the next router and the host are on the same network, the first router composes and sends the redirect packet to the host. The redirect packet serves to notify the host that packets addressed to the destination network are to be redirected to a virtual address of the next router.